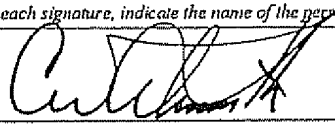


Box No. IX CHECK LIST; LANGUAGE OF FILING																																																																								
<p>This international application contains:</p> <p>(a) in paper form, the following number of sheets:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">request (including declaration sheets) :</td> <td style="width: 20%; text-align: right;">4</td> </tr> <tr> <td>description (excluding sequence listing and/or tables related thereto) :</td> <td style="text-align: right;">10</td> </tr> <tr> <td>claims :</td> <td style="text-align: right;">4</td> </tr> <tr> <td>abstract :</td> <td style="text-align: right;">1</td> </tr> <tr> <td>drawings :</td> <td style="text-align: right;">10</td> </tr> <tr> <td><b>Sub-total number of sheets :</b></td> <td style="text-align: right;"><b>29</b></td> </tr> <tr> <td>sequence listing :</td> <td></td> </tr> <tr> <td>tables related thereto :</td> <td></td> </tr> <tr> <td colspan="2"><i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer-readable form; see (c) below)</i></td> </tr> <tr> <td><b>Total number of sheets :</b></td> <td style="text-align: right;"><b>29</b></td> </tr> </table> <p>(b) <input type="checkbox"/> only in computer readable form (Section 80I(a)(i))</p> <p style="margin-left: 20px;">(i) <input type="checkbox"/> sequence listing</p> <p style="margin-left: 20px;">(ii) <input type="checkbox"/> tables related thereto</p> <p>(c) <input type="checkbox"/> also in computer readable form (Section 80I(a)(ii))</p> <p style="margin-left: 20px;">(i) <input type="checkbox"/> sequence listing</p> <p style="margin-left: 20px;">(ii) <input type="checkbox"/> tables related thereto</p> <p>Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the</p> <p><input type="checkbox"/> sequence listing: .....</p> <p><input type="checkbox"/> tables related thereto: .....</p> <p><i>(additional copies to be indicated under items 9(ii) and/or 10(ii) in right column)</i></p>	request (including declaration sheets) :	4	description (excluding sequence listing and/or tables related thereto) :	10	claims :	4	abstract :	1	drawings :	10	<b>Sub-total number of sheets :</b>	<b>29</b>	sequence listing :		tables related thereto :		<i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer-readable form; see (c) below)</i>		<b>Total number of sheets :</b>	<b>29</b>	<p>This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">1</td> <td style="width: 85%;"><input checked="" type="checkbox"/> fee calculation sheet</td> <td style="width: 10%; text-align: right;">:</td> </tr> <tr> <td>2</td> <td><input checked="" type="checkbox"/> original separate power of attorney</td> <td style="text-align: right;">:</td> </tr> <tr> <td>3</td> <td><input type="checkbox"/> original general power of attorney</td> <td style="text-align: right;">:</td> </tr> <tr> <td>4</td> <td><input type="checkbox"/> copy of general power of attorney; reference number, if any: .....</td> <td style="text-align: right;">:</td> </tr> <tr> <td>5</td> <td><input type="checkbox"/> statement explaining lack of signature</td> <td style="text-align: right;">:</td> </tr> <tr> <td>6</td> <td><input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): .....</td> <td style="text-align: right;">:</td> </tr> <tr> <td>7</td> <td><input type="checkbox"/> translation of international application into (language): .....</td> <td style="text-align: right;">:</td> </tr> <tr> <td>8</td> <td><input type="checkbox"/> separate indications concerning deposited microorganism or other biological material</td> <td style="text-align: right;">:</td> </tr> <tr> <td>9</td> <td><input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)</td> <td style="text-align: right;">:</td> </tr> <tr> <td></td> <td>(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :</td> <td></td> </tr> <tr> <td></td> <td>(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter :</td> <td></td> </tr> <tr> <td></td> <td>(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column :</td> <td></td> </tr> <tr> <td>10</td> <td><input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)</td> <td style="text-align: right;">:</td> </tr> <tr> <td></td> <td>(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application) :</td> <td></td> </tr> <tr> <td></td> <td>(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater) :</td> <td></td> </tr> <tr> <td></td> <td>(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column :</td> <td></td> </tr> <tr> <td>11</td> <td><input type="checkbox"/> other (specify): .....</td> <td style="text-align: right;">:</td> </tr> </table>	1	<input checked="" type="checkbox"/> fee calculation sheet	:	2	<input checked="" type="checkbox"/> original separate power of attorney	:	3	<input type="checkbox"/> original general power of attorney	:	4	<input type="checkbox"/> copy of general power of attorney; reference number, if any: .....	:	5	<input type="checkbox"/> statement explaining lack of signature	:	6	<input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): .....	:	7	<input type="checkbox"/> translation of international application into (language): .....	:	8	<input type="checkbox"/> separate indications concerning deposited microorganism or other biological material	:	9	<input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)	:		(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :			(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter :			(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column :		10	<input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)	:		(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application) :			(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater) :			(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column :		11	<input type="checkbox"/> other (specify): .....	:
request (including declaration sheets) :	4																																																																							
description (excluding sequence listing and/or tables related thereto) :	10																																																																							
claims :	4																																																																							
abstract :	1																																																																							
drawings :	10																																																																							
<b>Sub-total number of sheets :</b>	<b>29</b>																																																																							
sequence listing :																																																																								
tables related thereto :																																																																								
<i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer-readable form; see (c) below)</i>																																																																								
<b>Total number of sheets :</b>	<b>29</b>																																																																							
1	<input checked="" type="checkbox"/> fee calculation sheet	:																																																																						
2	<input checked="" type="checkbox"/> original separate power of attorney	:																																																																						
3	<input type="checkbox"/> original general power of attorney	:																																																																						
4	<input type="checkbox"/> copy of general power of attorney; reference number, if any: .....	:																																																																						
5	<input type="checkbox"/> statement explaining lack of signature	:																																																																						
6	<input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): .....	:																																																																						
7	<input type="checkbox"/> translation of international application into (language): .....	:																																																																						
8	<input type="checkbox"/> separate indications concerning deposited microorganism or other biological material	:																																																																						
9	<input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)	:																																																																						
	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :																																																																							
	(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter :																																																																							
	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column :																																																																							
10	<input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)	:																																																																						
	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application) :																																																																							
	(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater) :																																																																							
	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column :																																																																							
11	<input type="checkbox"/> other (specify): .....	:																																																																						
Figure of the drawings which should accompany the abstract: 1	Language of filing of the international application: English (US)																																																																							
<b>Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE</b> <i>Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).</i>																																																																								
 <div style="display: flex; justify-content: space-between;"> <span>Charles W. Alworth</span> <span>28 JUN 2005</span> </div>																																																																								

For receiving Office use only	
1. Date of actual receipt of the purported international application:	2 Drawings:  <input type="checkbox"/> received:   <input type="checkbox"/> not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more are competent): ISA /	
6 <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only
Date of receipt of the record copy by the International Bureau:

This sheet is not part of and does not count as a sheet of the international application

PCT

FEE CALCULATION SHEET  
Annex to the Request

For receiving Office use only

International Application No. \_\_\_\_\_

Date stamp of the receiving Office \_\_\_\_\_

Applicant's or agent's  
file reference

05 PCT 211

Applicant

Earles and Lasater

CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE

300 T

2. SEARCH FEE

1000 S

International search to be carried out by

US

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search)

3. INTERNATIONAL FILING FEE

Where items (b) and/or (c) of Box No. IX apply, enter Sub-total number of sheets }  
Where items (b) and (c) of Box No. IX do not apply, enter Total number of sheets }

i1 first 30 sheets

1134 i1

i2

0

x

12

=

0 i2

number of sheets  
in excess of 30

fee per sheet

i3

additional component (only if sequence listing and/or tables related thereto are filed in computer readable form under Section 801(a)(i), or both in that form and on paper, under Section 801(a)(ii)):

400 x

fee per sheet

0 i3

Add amounts entered at i1, i2 and i3 and enter total at I

1134 I

(Applicants from certain States are entitled to a reduction of 75% of the international filing fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the international filing fee.)

4. FEE FOR PRIORITY DOCUMENT (if applicable)

20 P

5. TOTAL FEES PAYABLE

2454

Add amounts entered at T, S, I and P, and enter total in the TOTAL box

TOTAL

MODE OF PAYMENT

☐ authorization to charge  
deposit account (see below)

☐ postal money order

☐ cash

☐ coupons

☒ cheque

☐ bank draft

☐ revenue stamps

☐ other (specify): \_\_\_\_\_

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT  
(This mode of payment may not be available at all receiving Offices)

☐ Authorization to charge the total fees indicated above

☐ (This check-box may be marked only if the conditions for deposit accounts of the receiving Office so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above

☐ Authorization to charge the fee for priority document

Receiving Office: RO/ \_\_\_\_\_

Deposit Account No: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Signature \_\_\_\_\_

# PCT

## POWER OF ATTORNEY

(for an international application filed under the Patent Cooperation Treaty)

(PCT Rule 90.4)

The undersigned applicant(s) (Names should be indicated as they appear in the request):

Earles, Ronald G.  
Lasater, Jeffrey B.

hereby appoints (appoint) the following person as:



agent



common representative

**Name and address**

(Family name followed by given name, for a legal entity, full official designation. The address must include postal code and name of country.)

Alworth, Charles W.  
Registered U.S. Patent Attorney  
505 (Ex 502) Cumberland Road  
Tyler, Texas 75703-9325  
US

to represent the undersigned before



all the competent International Authorities



the International Searching Authority only



the International Preliminary Examining Authority only

in connection with the international application identified below:

Title of the invention: Rotary Vector Gear for Use in Rotary Steerable Tools

Applicant's or agent's file reference: 05 PCT 211


International application number (if already available):

filed with the following Office US

as receiving Office

and to make or receive payments on behalf of the undersigned.

Signature of the applicant(s) (where there are several applicants, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading the request or this power):

  
\_\_\_\_\_  
Ronald G. Earles - Inventor/Applicant

  
\_\_\_\_\_  
Jeffrey B. Lasater - Inventor/Applicant